



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,175	12/31/2003	Lukas Trosman	24GA127098	5553
33727	7590	06/23/2008		
HARNESS, DICKEY & PIERCE, P.L.C.			EXAMINER	
P.O. BOX 8910			PALABRICA, RICARDO J	
RESTON, VA 20195				
		ART UNIT	PAPER NUMBER	
		3663		
		MAIL DATE	DELIVERY MODE	
		06/23/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/748,175

Applicant(s)

TROSMAN ET AL.

Examiner

Rick Palabrica

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21, 23, 26 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21, 23, 26, and 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's 6/2/08 submission, which directly amended claims 21 and 29-32, canceled claims 22, 24, and 25, has been entered.

2. In his 8/9/04 Response to the 7/14/04 Restriction Requirement, applicant elected for prosecution, "species I represented by Figures 2-4 and as further identified in species group A, wherein each water passage has the shape of a circle."

The elected embodiment, as shown in Figs. 1-4, is directed to a 10X10 fuel-rod matrix, and claims 21, 23, 26, and 28-30 are readable thereon. The non-elected embodiment, as shown in Fig. 5, is directed to a 9X9 fuel-rod matrix, and claims 31 and 32 are readable thereon.

Accordingly, claims 21, 23, 26 and 28-30 are examined in this Office action. Claims 31 and 32 are withdrawn from consideration as being directed to a nonelected invention. See 37 CFR 1.142(b) and MPEP 821.03.

Response to Arguments

2. In the instant RCE, applicant has canceled previous claims 22 and 24, and included their limitations into claim 21. Applicant also included the limitation of previous claim 24 into amended claim 29, and included the limitation of previous claim 22 into amended claim 30. Previous claim 22 recited a range for the length of the intermediate-length fuel rods and previous claim 24 recited a range for the length of short-length fuel rods.

Previous claims 22 and 24 (which depend from previous claim 21) have been rejected by a previous examiner on the grounds that they are matters of optimization within prior art conditions or through routine experimentation (see section 6 of the 2/13/06 Office action).

Applicant argues that the amended claim 21 defines over the applied art in the 2/1/06 Office action, on the ground that applied art Orii "teaches away from the recited ranges and none of the secondary references cure this teaching away." The secondary references cited by the applicant refer to Ueda et al. and Johannson et al.

The examiner disagrees.

Art Unit: 3663

First, in its 3/31/08 decision, the Board affirmed the previous examiner's rejection of claims 22 and 24 based on optimization. Note the following statement of the Board on this matter:

"The Examiner found that the number and relative length of part length rods is a matter of optimization within prior art conditions or through routine experimentation (Answer 5). In particular, the Examiner found that the Appellants have not shown the criticality of the claimed rod length ranges or arrangements, and indeed there is none, as the claimed rod length ranges and number of partial-length rods achieve only predictable and expected changes in reactor performance (Answer 14-15). The Examiner is correct that the Appellants have provided evidence of neither criticality nor unexpected results." Underlining provided. See page 13 of the 3/31/08 Board Decision.

Second, applicant himself admits that these lengths are matters of optimization, as evidenced by the following statement:

"To prevent steam-venting, the length of both the intermediate-length fuel rods and the short-length fuel rods can be optimized over a range of lengths." See paragraph 0010 of the Specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 21, 23, 26 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oorii et al. in view of Ueda et al. and Johansson et al.

The reasons are the same as those stated in section 6 of the 2/13/06 Office action, as further clarified in section 2 above, which reasons are herein incorporated.

Conclusion

4. This is a continuation of applicant's earlier application with the same serial number. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick Palabrica whose telephone number is 571-272-6880. The examiner can normally be reached on 6:00-4:30, Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 16, 2008

/Rick Palabrica/
Primary Examiner, Art Unit 3663